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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/644,859	08/24/2000	Nobuyuki Matsukawa	P65868US0	2591

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EXAMINER

VU, NGOC YEN T

ART UNIT	PAPER NUMBER
2612	4

DATE MAILED: 12/18/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/644,859

Applicant(s)

MATSUKAWA, NOBUYUKI

Examiner

Ngoc-Yen T. Vu

Art Unit

2612

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 August 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☒ Claim(s) 5 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 August 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

2. The information disclosure statement, filed 01/18/2001, has been placed in the application file, and the information referred to therein has been considered as to the merits.

Specification

3. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Drawings

4. Figures 1A and 1B should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Inagaki et al. (US #6,084,634).

Regarding claim 1, Inagaki '634 teaches an image pickup apparatus comprising:

an image pickup device (Fig. 13, image sensor 4) having a light-receiving section to receive light from an object to generate an analog video signal, and a light-blocking section to block the light to generate reference signals (Fig. 15, effective pixel region and OB area) (col. 18 lines 1-37);

an analog-to-digital converter to convert the analog video signal into a digital video signal (Fig. 13, A/D 5);

a processor to accumulate the reference signals a predetermined number of times from a predetermined accumulation starting point on scanning lines forming an image of the object for a specific period and average the accumulated signal to generate an average signal (Figs. 13-14, optical black detector/corrector 701; see col. 17 lines 32-44; col. 22 line 54 – col. 23 line 6; col. 23 line 46 – col. 24 line 6; col. 24 line 46 – col. 25 line 14; col. 31 lines 57-65) ; and

an adjuster to adjust a reference level of the video signal based on the average signal so that the difference between the video signal and the average signal becomes zero (col. 17 lines 9-67).

Claim 1 differs from Inagaki that the claim requires the adjuster adjusts a reference level of the digital video signal based on the average signal so that the difference between the digital video signal and the average signal becomes zero. In another embodiments as shown in figures 29-32, Inagaki '634 teaches a fixed pattern noise (FPN) memory (703) for storing average of dark image data from the sensor element, a memory controller (704) and a subtractor (706) wherein the digital video signal outputted from the image sensor (4) is adjusted based on the average dark image data so that the difference between the digital video signal and the average signal becomes zero (col. 27 line 44 – col. 29 line 49). In light of the teaching from Inagaki, it would have been obvious to one of ordinary skill in the art to utilize the FPN correction taught in the embodiment shown in figures 29-32 in order to obtain continuous image display on a monitor without reducing the output image rate.

As to claim 2, Inagaki also teaches a controller (Figs. 35, 40, 44, 46, 49 and 51, controller 11) to decide the number of times for accumulation as $2n$ that is smaller than a specific number "m" of the scanning lines for forming the image of the object, "n" and "m" being positive integers, and to decide the accumulation starting point as $(m - 2^n)/2$ (Inagaki teaches that the number of accumulated image frames per second is increased as the time for reading out pixels in the partial areas is decreased; see Figs. 47, 48 and 52; see also col. 11 line 62 – col. 12 line 21; col. 38 line 11 – col. 39 line 14; col. 40 line 38 – col. 41 line 14).

Regarding claims 3-4, they are method claims corresponding to the apparatus claims 1-2. Therefore, method claims 3-4 are analyzed and rejected as previously discussed with respect to claims 1-2

Allowable Subject Matter

6. Claim 5 is allowed.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ngoc-Yen T. Vu whose telephone number is 703-305-4946. The examiner can normally be reached on Mon. – Fri. from 8:00 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wendy R. Garber can be reached on 703-305-4929. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4700.


NGOC-YEN VU
PRIMARY EXAMINER

Art Unit 2612

NYV